flight

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Building Power Track: Philosophy & Design

Eoin Coffey

Realtime Team Lead, Twitter | @ecoffey

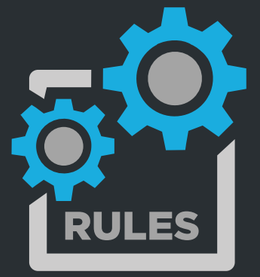
500 M Tweets per day
flight

Finding the needle in the haystack

FIREHOSE

FILTERING

STREAMING



RULES

CUSTOMER

flight

PowerTrack

Product Highlights

How We Built PowerTrack

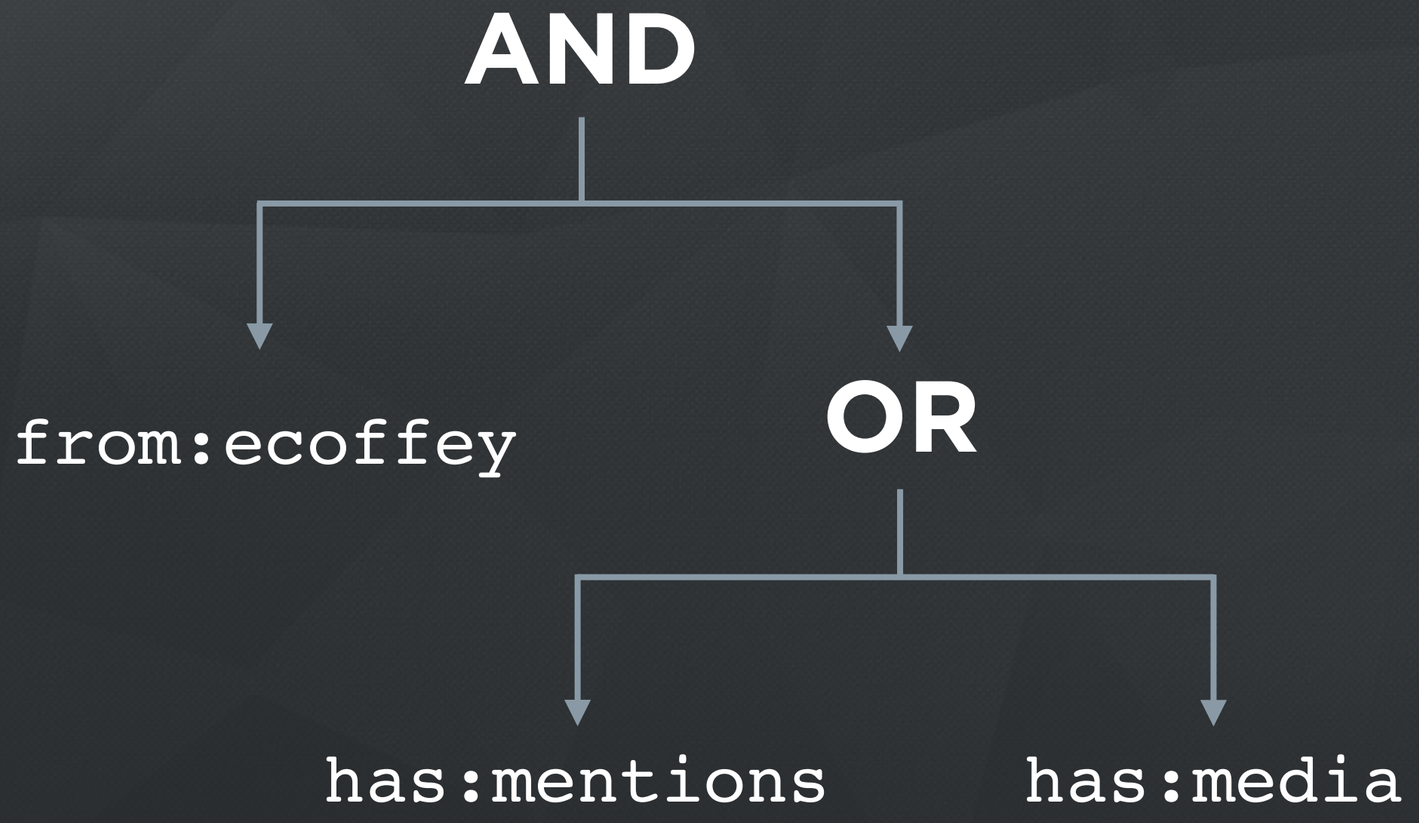
```
from:ecoffey (has:mentions OR has:media)
```

Eoin Coffey
@ecoffey
Follow
Trust, but verify
ORGANIC GREEN TEA
FAVORITES
6
2:04 PM - 8 May 2015

Eoin Coffey
@ecoffey
Follow
You could randomly pick enough @sarahmei tweets to fill a book and it'd be a Software Development best seller
FAVORITE
1
7:27 PM - 26 Aug 2015

flight

from:ecoffey (has:mentions OR has:media)



flight

```
from:ecoffey (has:mentions OR has:media)
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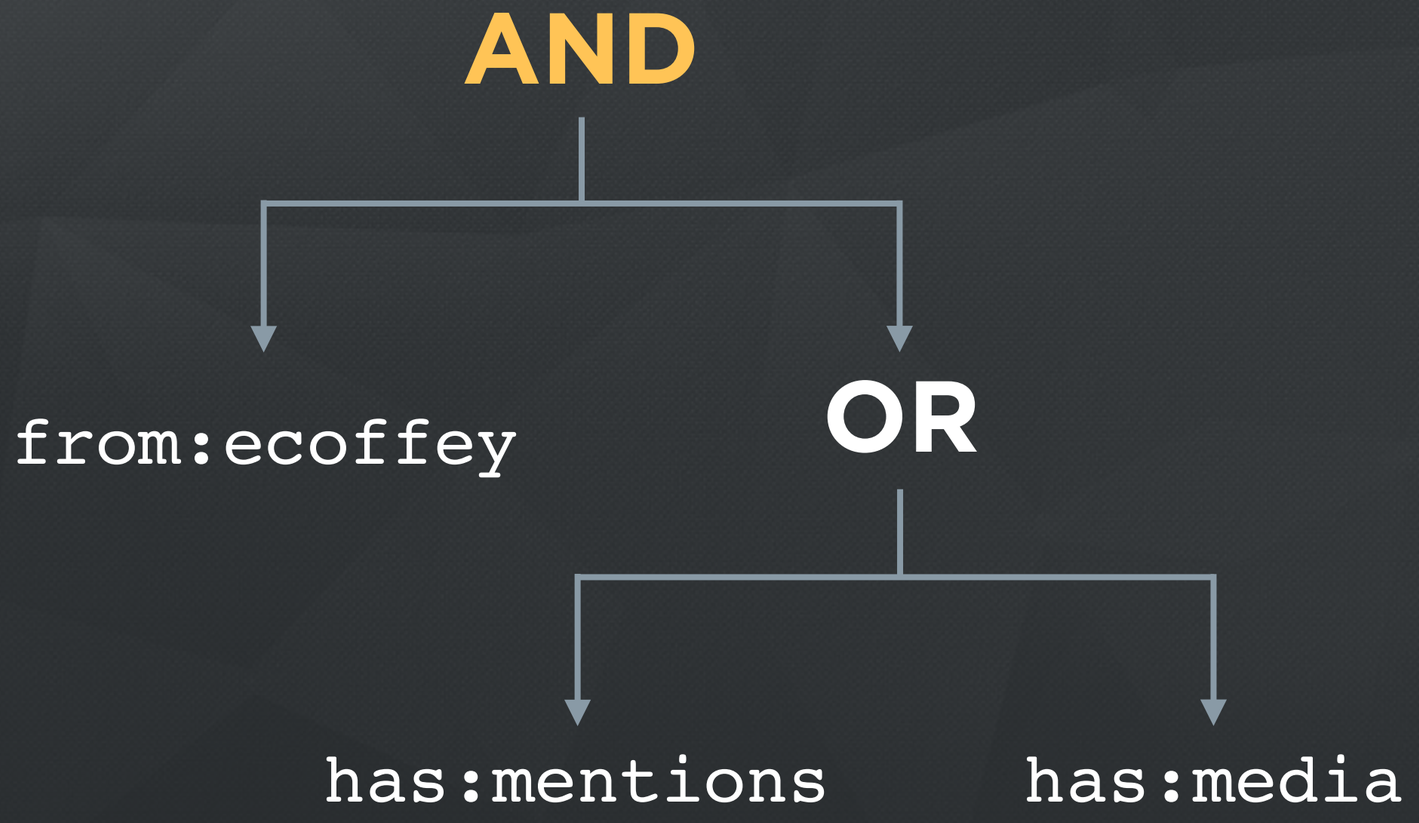

flight

```
from:ecoffey (has:mentions OR has:media)
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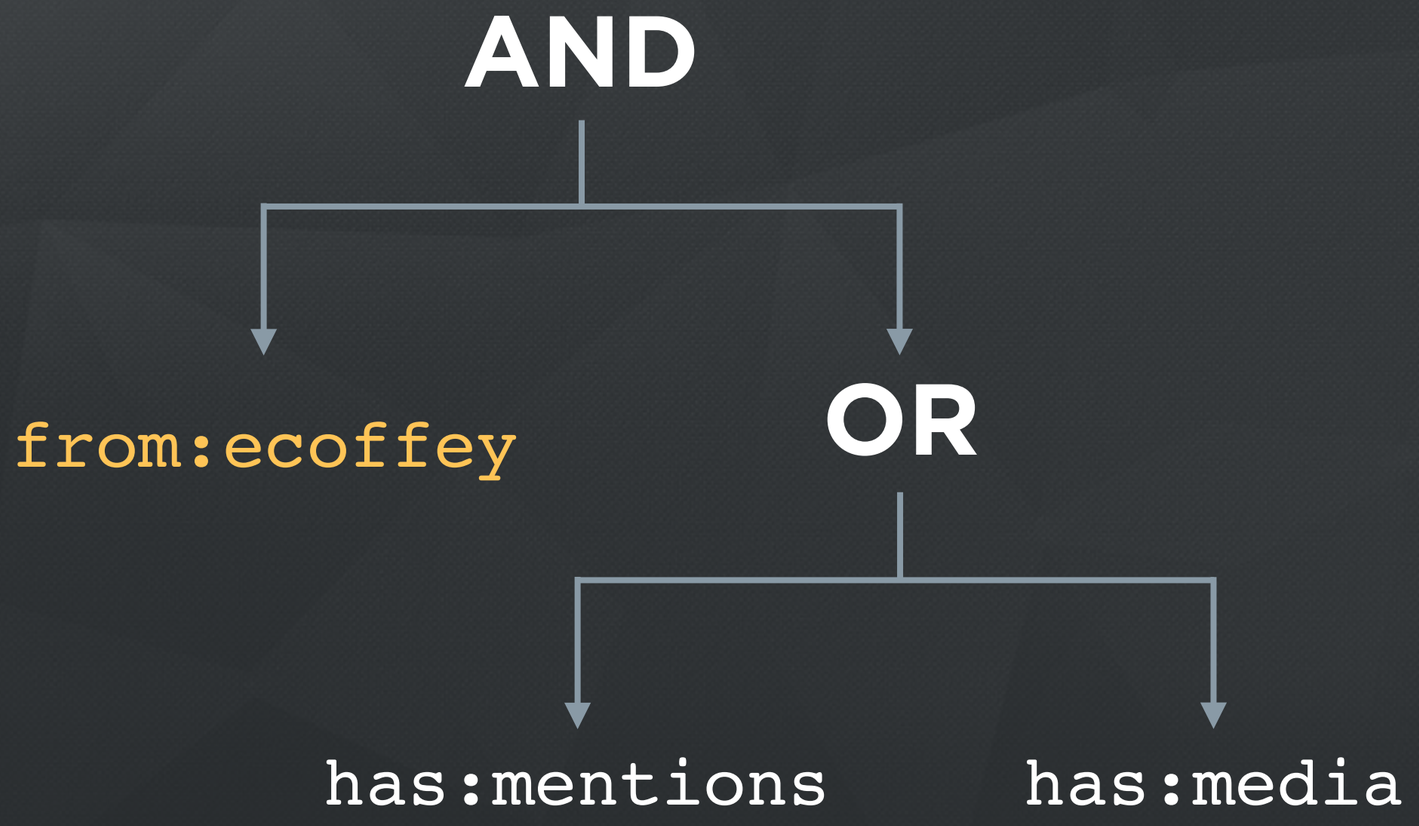

flight

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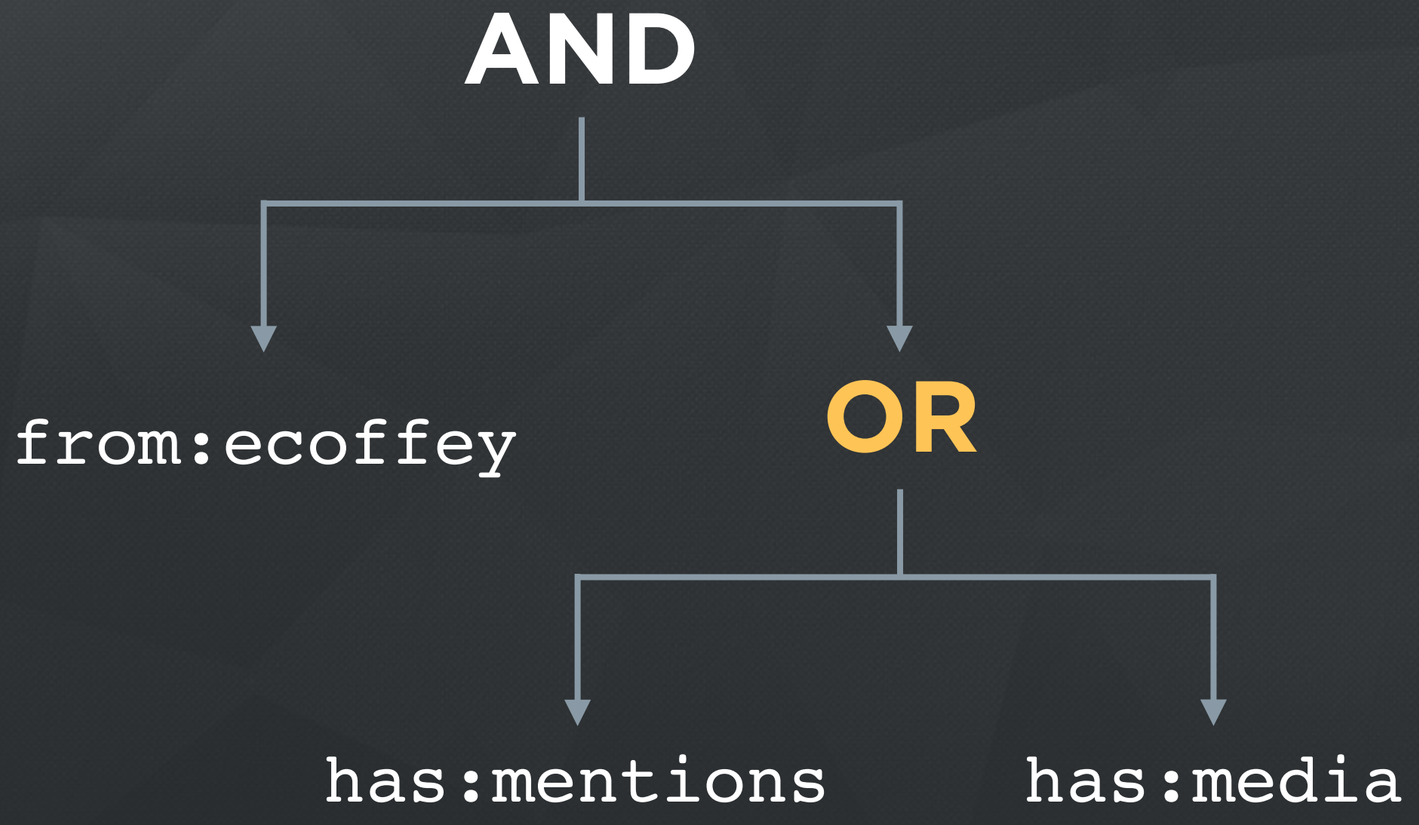

flight

```
from:ecoffey (has:mentions OR has:media)
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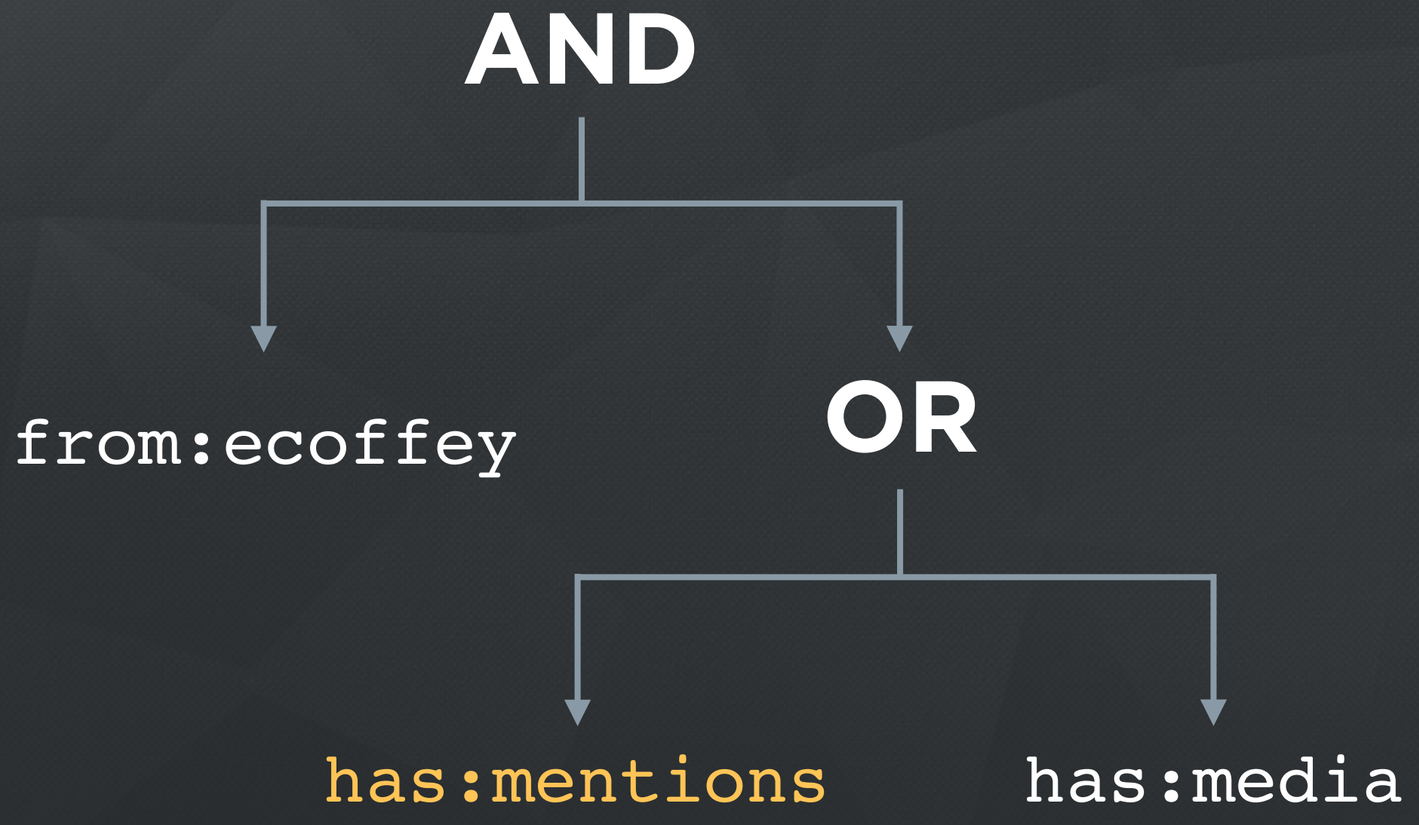

flight

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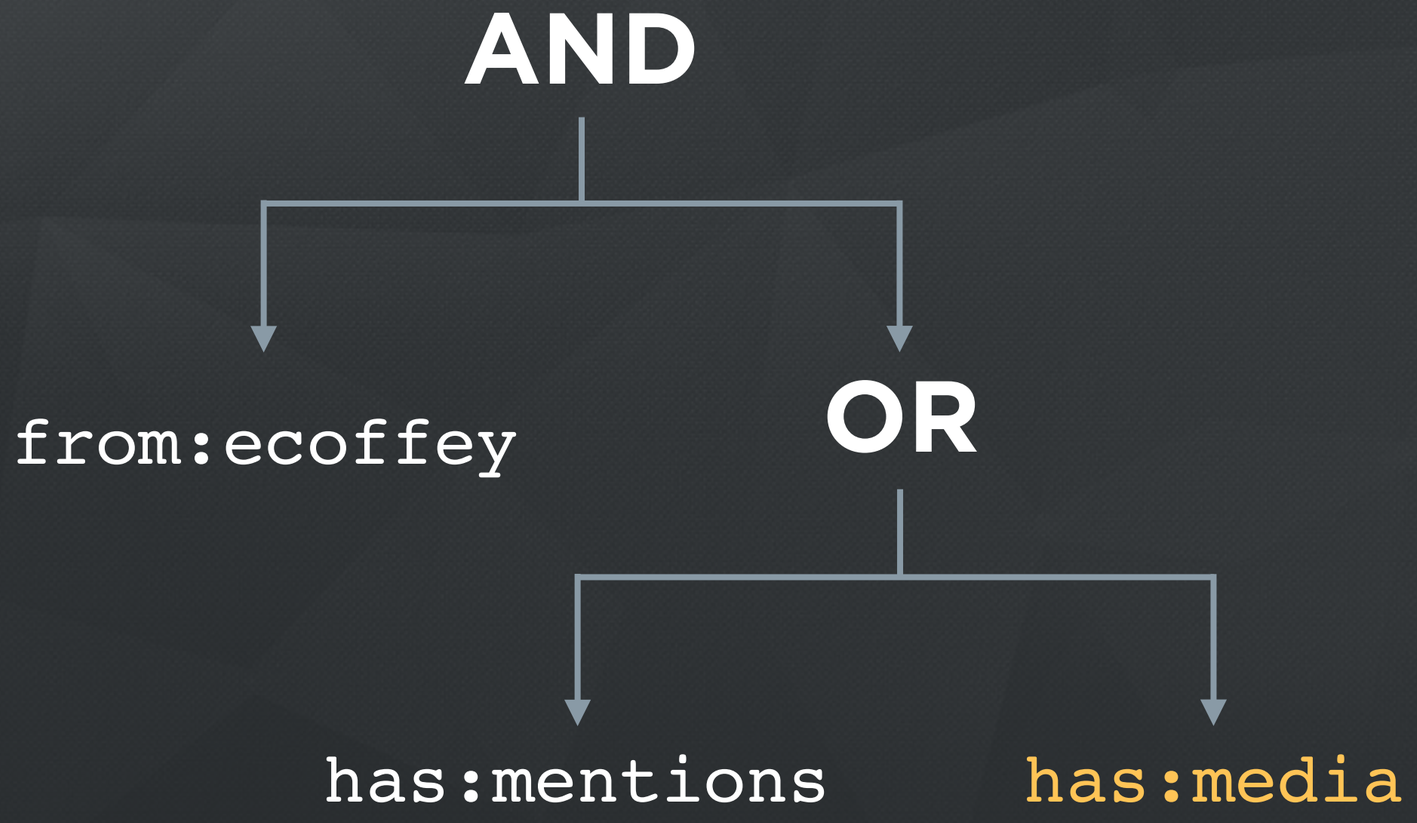

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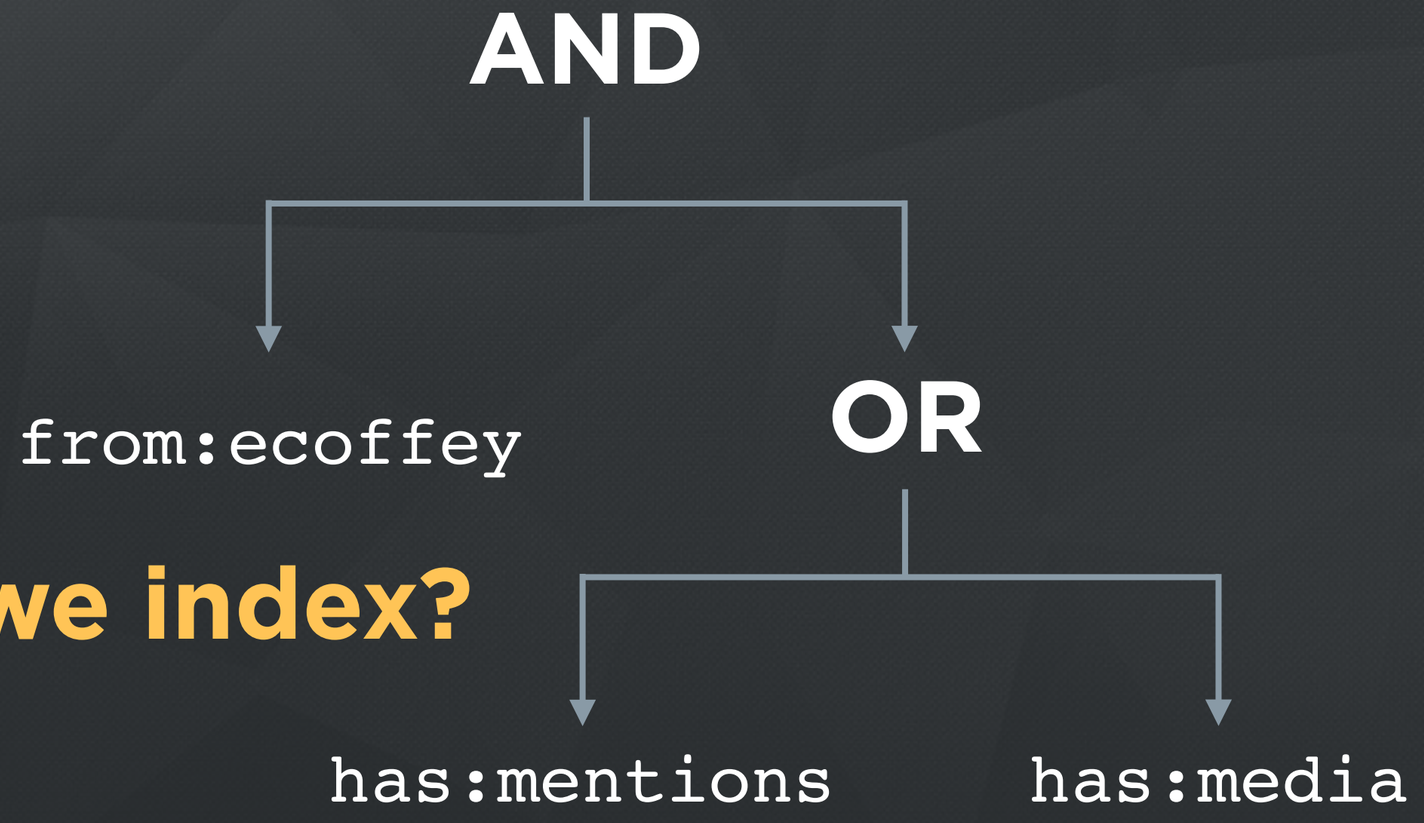
5,787 Tweets per second
flight

.000172 Seconds per Tweet
flight

Predicate Indexing

```
from:ecoffey (has:mentions OR has:media)
```



What do we index?

```
from:ecoffey (has:mentions OR has:media)
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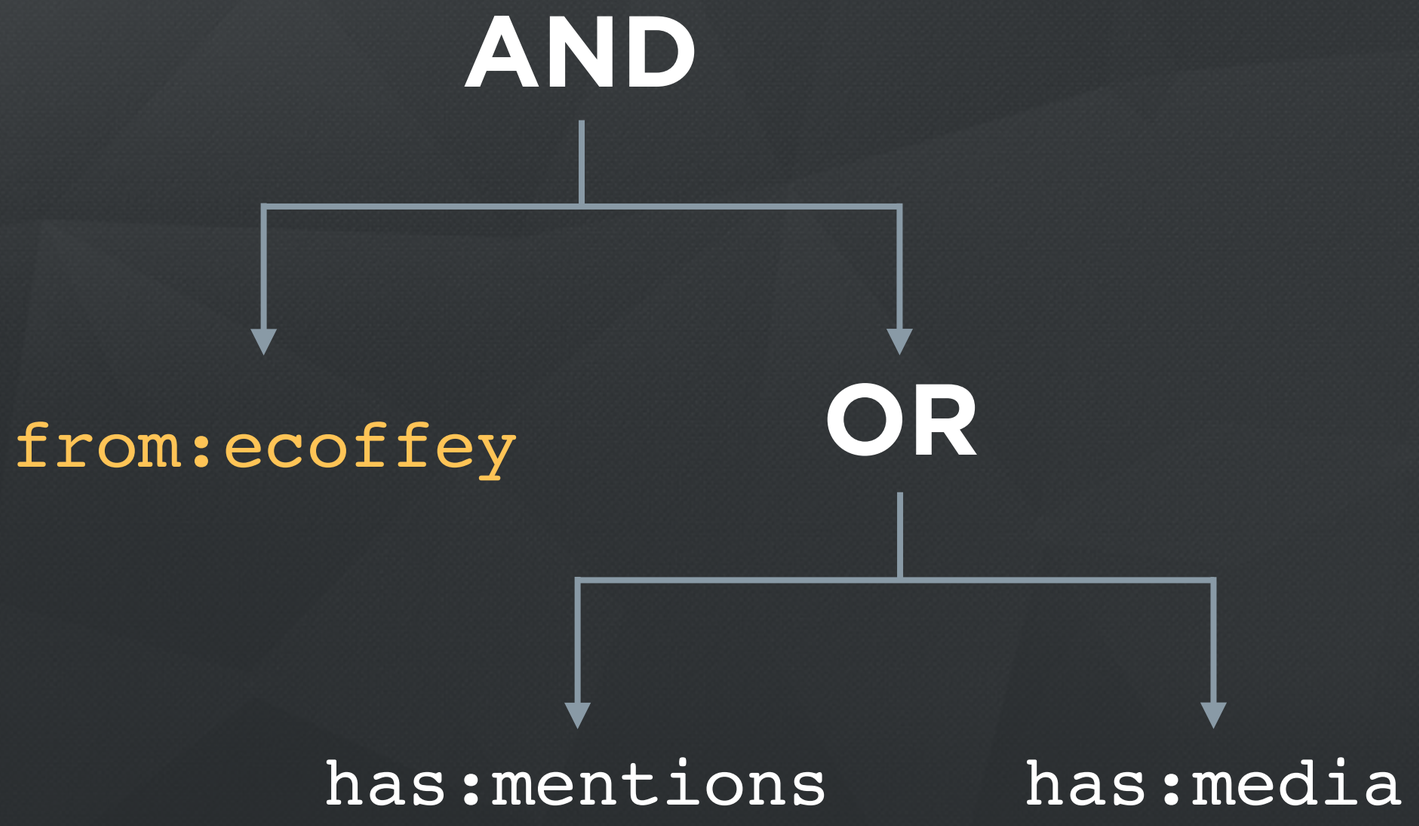
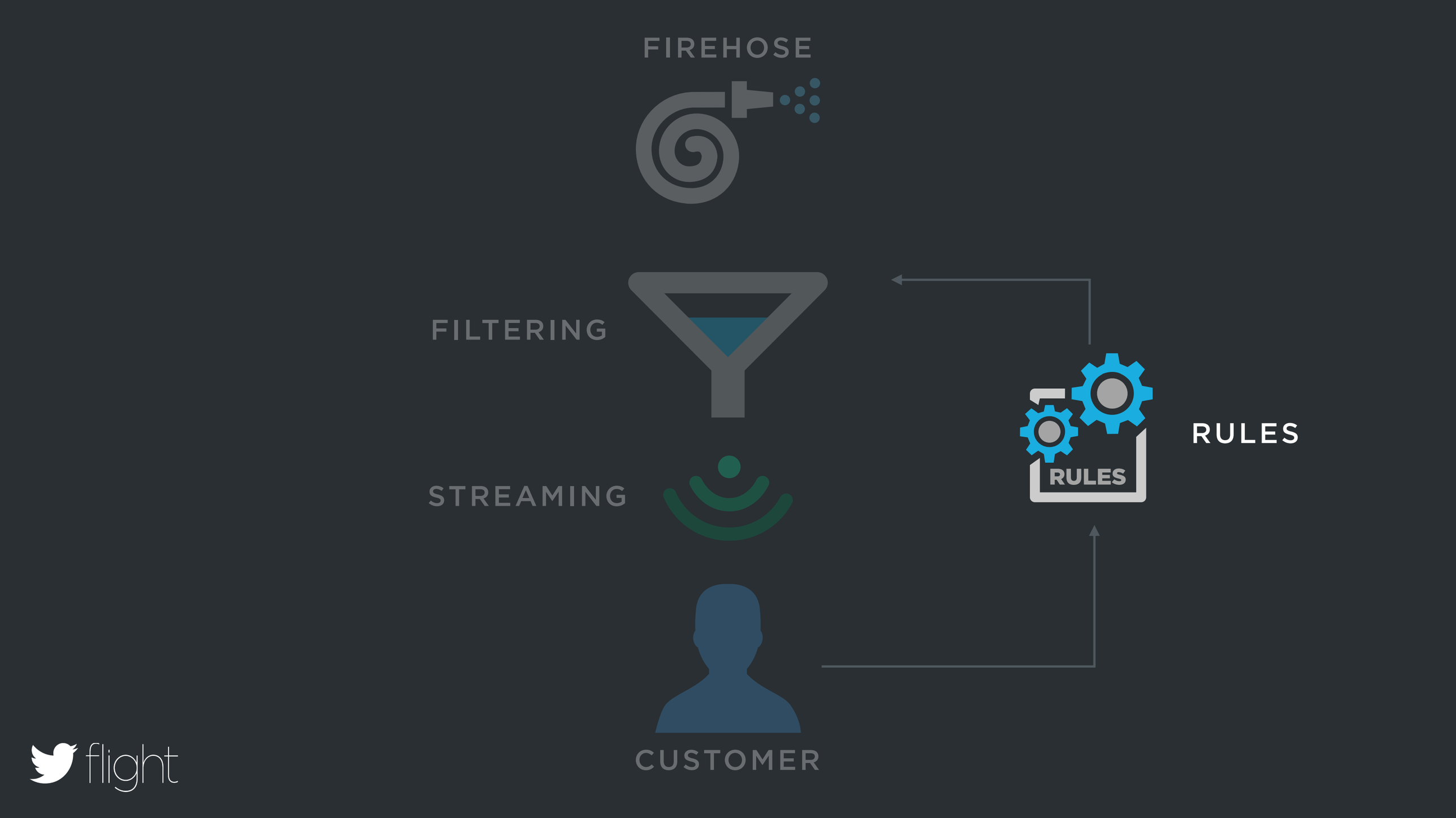


flight

flight



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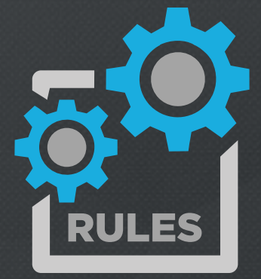
RULES



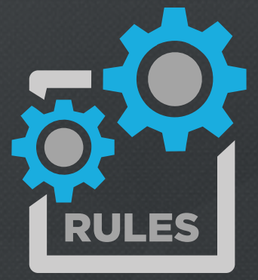
UPDATES

RULES TEXT

RULES LIST

flight

RULES



UPDATES

RULES TEXT

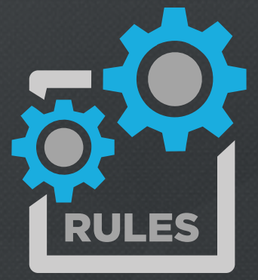
from:ecoffey

RULES LIST

from:ecoffey add

flight

RULES



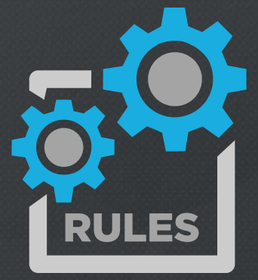
UPDATES

RULES TEXT

RULES LIST	
from:ecoffey	delete
from:ecoffey	add

flight

RULES



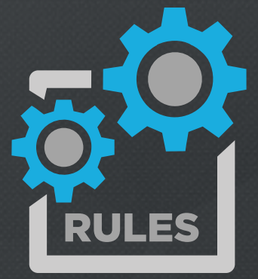
UPDATES

RULES TEXT
“twitter fabric”

RULES LIST	
“twitter fabric”	add
from:ecoffey	delete
from:ecoffey	add

flight

RULES



UPDATES

RULES TEXT
“twitter fabric”
from:jack

RULES LIST	
from:jack	add
“twitter fabric”	add
from:ecoffey	delete
from:ecoffey	add

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STREAMING
RULES
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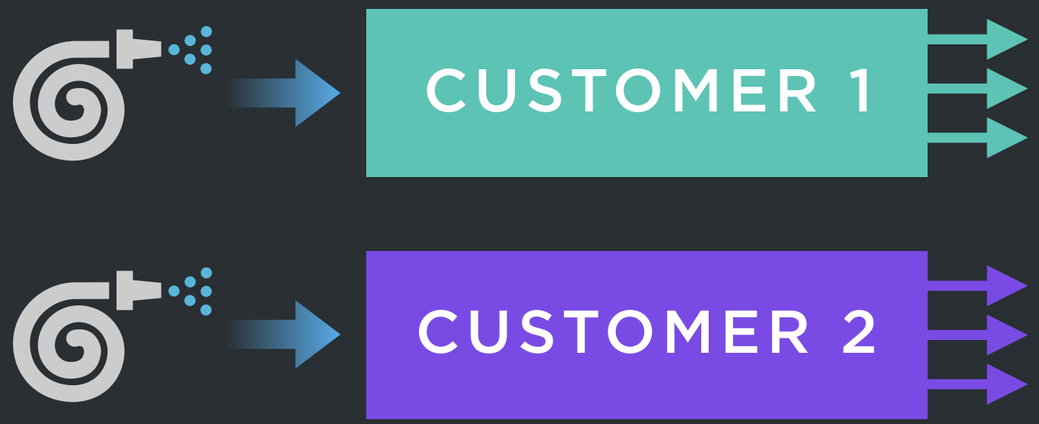
Side A



Side B

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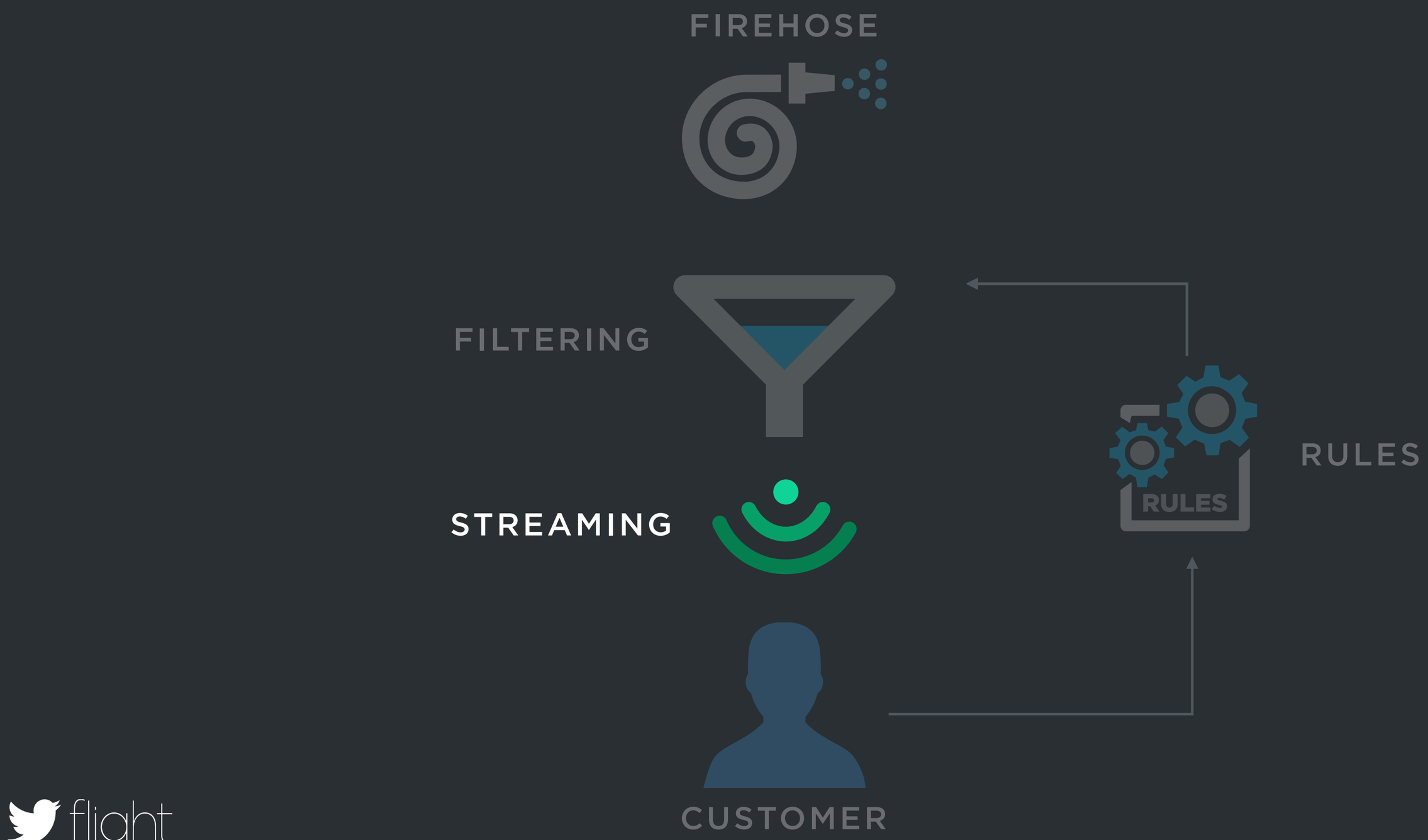
Bend, Don’t Break

Quarantine


FIREHOSE
FILTERING
STREAMING
RULES
RULES
CUSTOMER
flight

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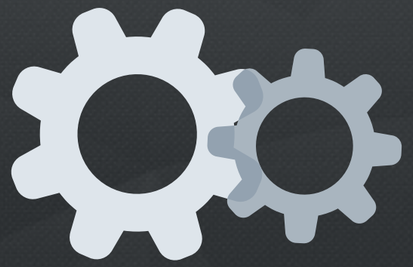
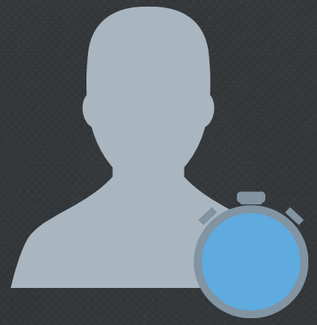
Common Themes In Each Layer



OPERATIONAL SIMPLICITY

RELIABLE TECHNOLOGIES

DEFENSE IN DEPTH



LIMIT TIME OF CUSTOMER IMPACT

Not just about code...
It's about **people**
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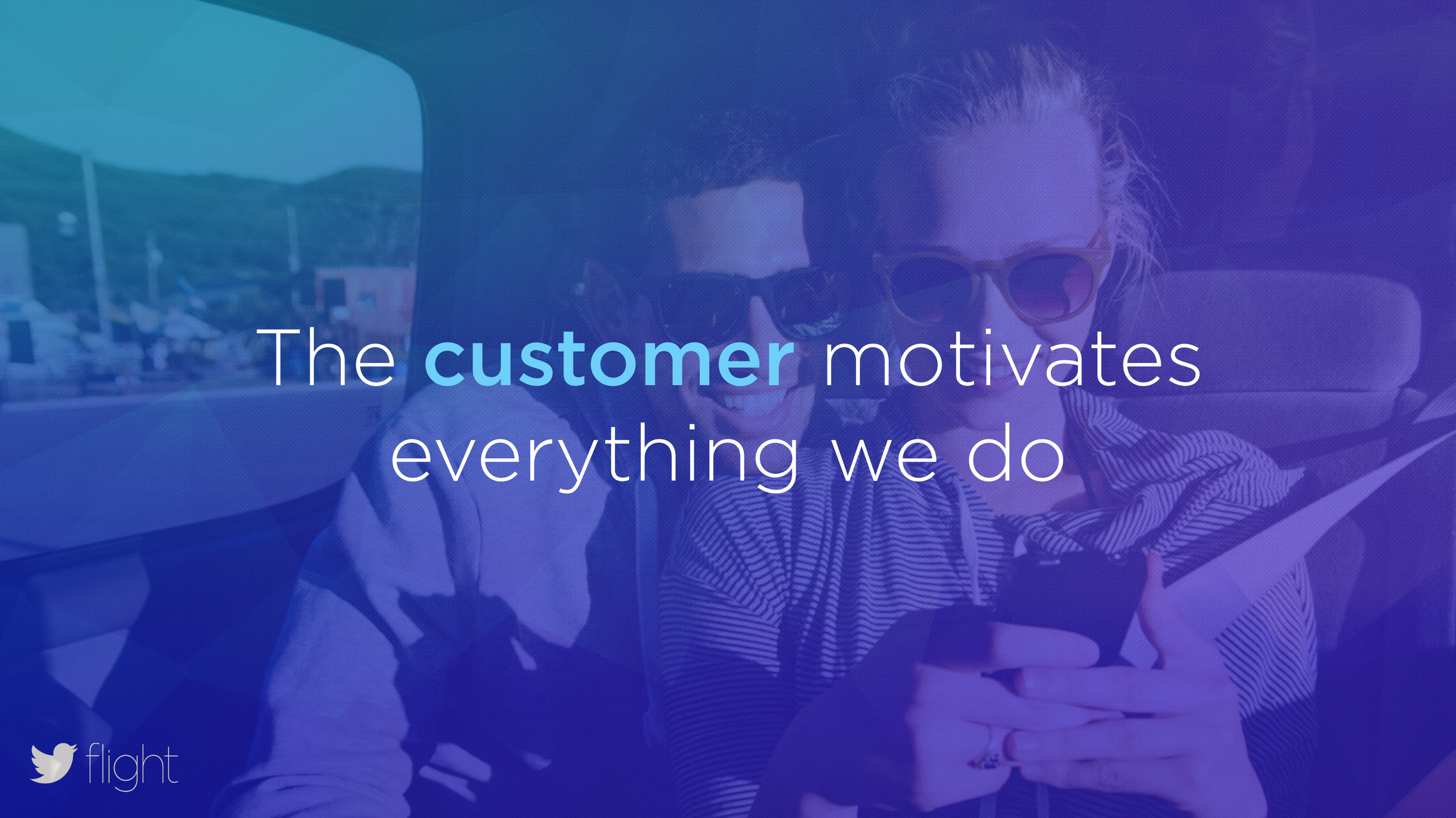
The customer motivates
everything we do
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Collective code ownership
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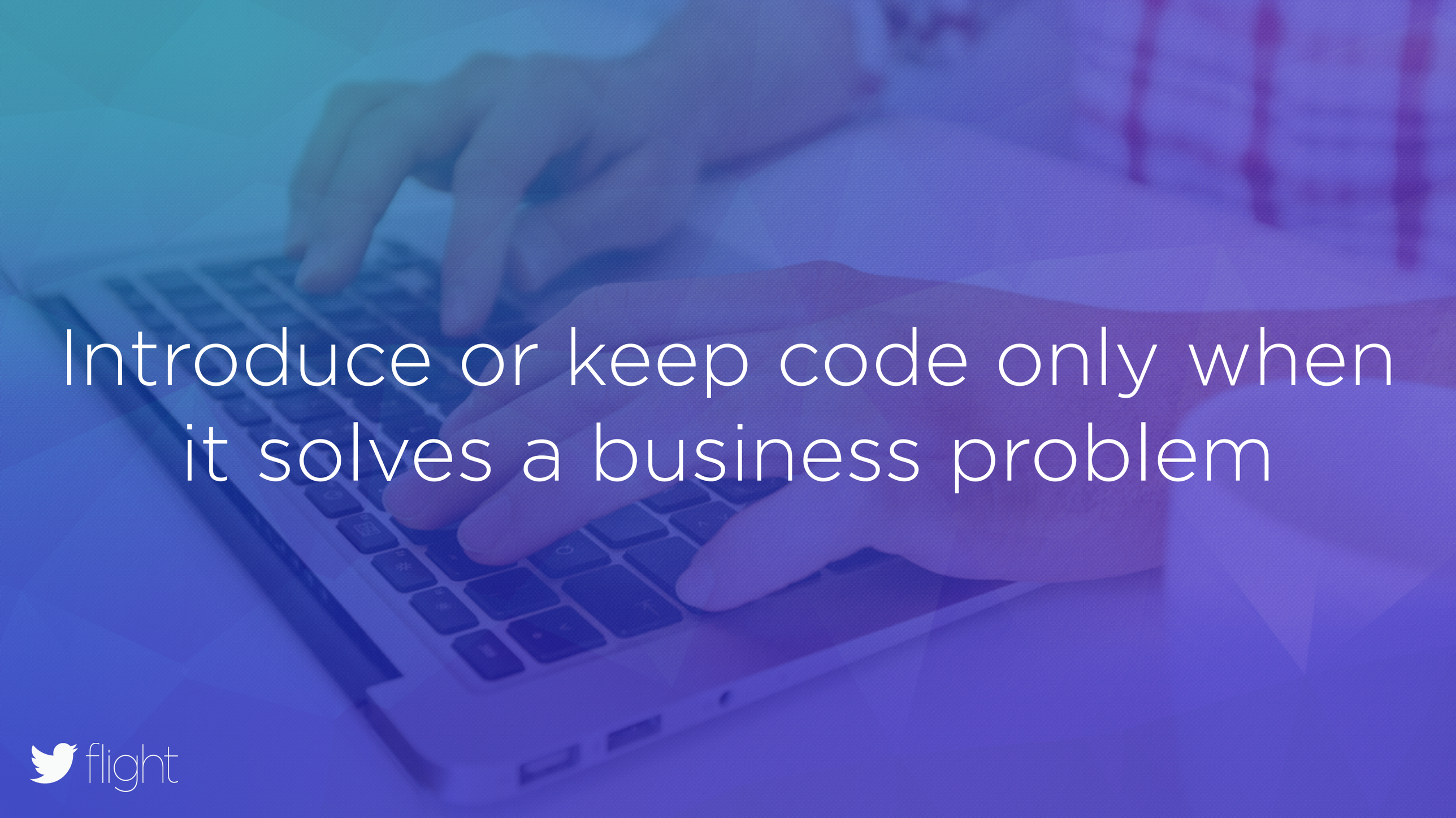
Face to face communication
over processes and tools
flight


Introduce or keep code only when
it solves a business problem
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Optimizes for the group
over the individual
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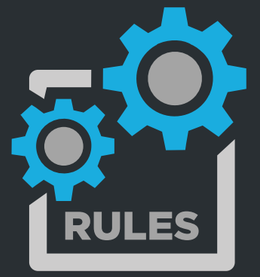
FIREHOSE

FILTERING

STREAMING



RULES

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Thank You

@ecoffey

APPENDIX OF TEMPLATE SLIDES

SUBTITLE

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Graph/Chart Examples

BASED ON MASTER SLIDES

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of people are... This is an example of an editable pie chart with a large statement

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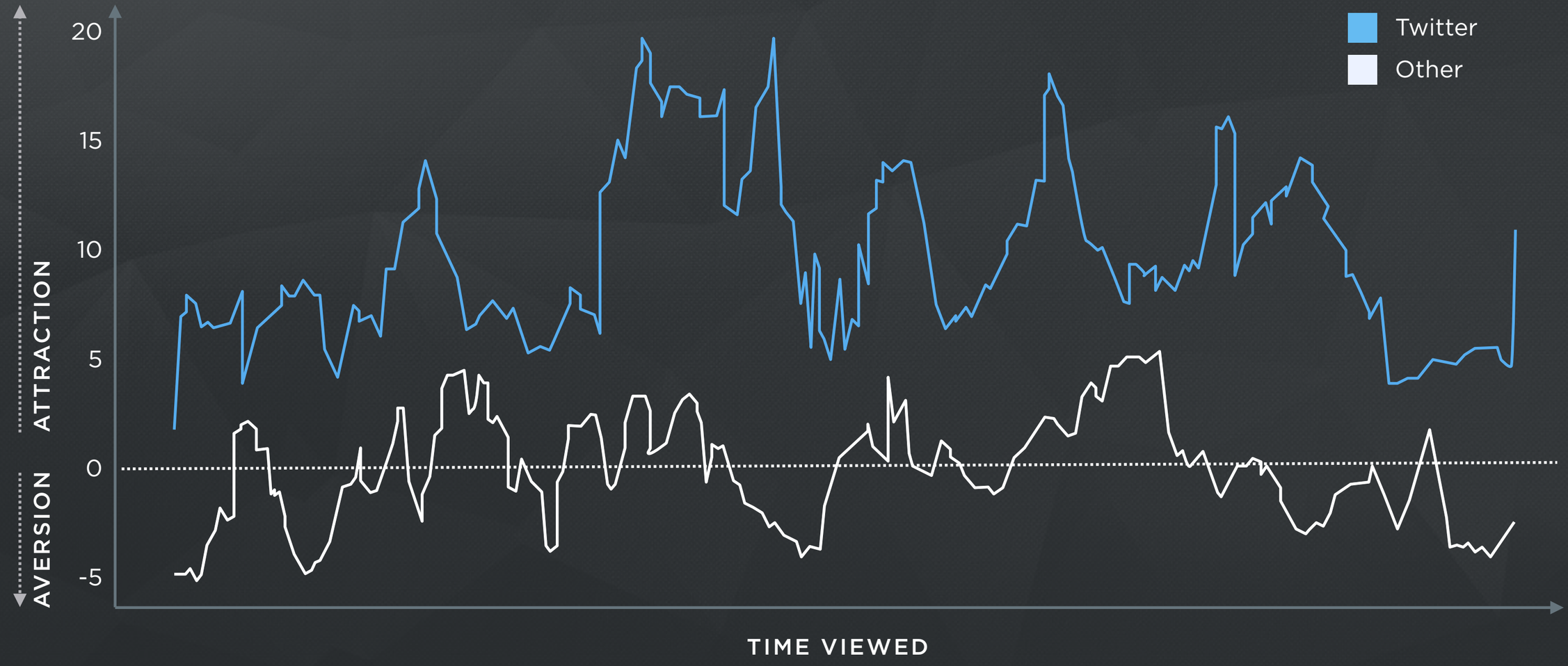
Line Chart Editable Example



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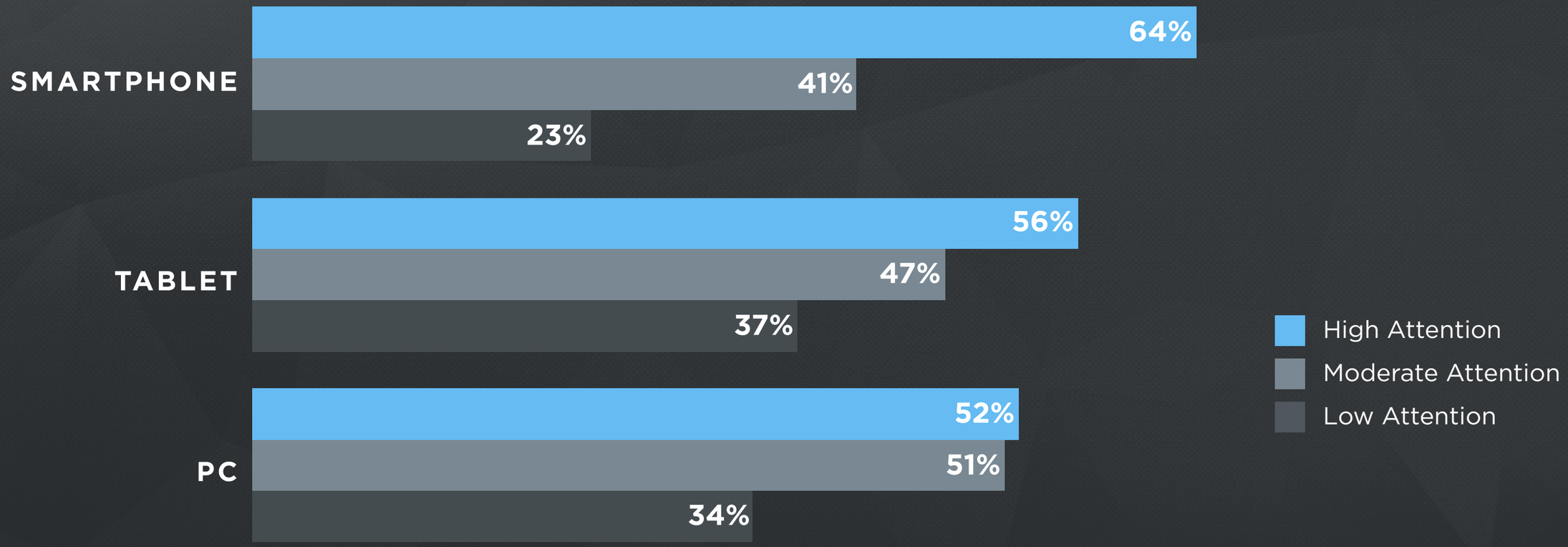
Source | Nielsen, Video Engagement in Choice Environments, Dec 2014

Bar Chart Editable Example



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Source | “Where Can Digital Video Ads Have Consumers' Attention? Smartphones” eMarketer, Oct 2014

Code Examples

BASED ON THE CODE MASTER SLIDE

```
DGTAuthenticateButton *digitsButton =
[DGTAuthenticateButton buttonWithAuthenticationCompletion:

^(DGTSession *session) {
  // Inspect and/or store session
  object
}];

[self.view addSubview:digitsButton];

DGTAuthenticateButton *digitsButton =
[DGTAuthenticateButton buttonWithAuthenticationCompletion:
^(DGTSession *session) {
}];
```

Web Screenshot Examples

BASED ON MASTER SLIDES

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fabric.io
Cannonball 2.3.1
io.fabric.example.cannonball
Jeff Seibert
Twitter, Inc.
ACTIVE USERS
2,019
RIGHT NOW
DAILY ACTIVE USERS
77.9 k
▲8.7%
DAILY NEW USERS
7.1 k
▲11.4%
MONTHLY ACTIVE USERS
2.1 M
▲3.8%
CRASH-FREE USERS
96.5 %
▼-2.6%
SESSIONS
248.2 k
▲10.2%
SESSION LENGTH
0:35 SEC
0.0%
DAILY ACTIVE USERS
77.9k
TODAY
300K
200K
100K
0
SEP 16
SEP 21
SEP 28
OCT 05
OCT 12
OCT 16

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Feature Name

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Tweet Examples

COPY AND PASTE THESE TWEETS TO CREATE YOUR OWN

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The Barista Bar
@baristabar

Visit our site to see the full Barista Bar menu and specials! #LoveCoffee

41 68

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The Barista Bar
@baristabar

Visit our site to see the full Barista Bar menu and specials! #LoveCoffee

41 68

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Special Examples

BASED ON BLANK MASTER SLIDES

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This is a blank slide for use in a variety of scenarios

“Nowadays, Crashlytics is a normal part of our development and production lifecycle, and we’re very happy with it.”

–Justin Morgan

Senior iOS Developer | Starbucks

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